## PATENT COOPERATION TREATY

To:

## From the INTERNATIONAL BUREAU

## **PCT**

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)

(PCT Rules 44bis.3(c) and 72.2)

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ERHALTEN

08. MRZ 2006

Mitscherlich & Partner Patent- u. Rechtsanwälte

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02 March 2006 (02.03.2006)

Applicant's or agent's file reference P27515/WO Kf

IMPORTANT NOTIFICATION

International application No. PCT/EP2004/002897

International filing date (day/month/year)
19 March 2004 (19.03.2004)

Applicant

BRUENINGHAUS HYDROMATIK GMBH et al

1	Transmittal of the	translation to	o the applicant
	Transmitta, Or me	u ansianon u	о ше аррпсані.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on
patentability (Chapter 1).

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

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3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20. Switzerland

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## PATENT COOPERATION TREATY

# **PCT**

# Translation INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

	r agent's file referen	ice	FOR FURTHER	ACTION	See Form PCT/IPEA/416		
P27515/WO Kf							
/			late (day month year)	Priority date (day month year)			
			19.03.200 onal classification and	<u></u> ,	19.03.2003		
Applicant							
BROEN	INGHAUS H	I DROMA'	TIK GMBH				
1. This unde	report is the interier Article 35 and tra	national prelim insmitted to the	ninary examination re e applicant according	port, established by this to Article 36.	International Preliminary Examining Authority		
2. This	REPORT consists	of a total of	5	sheets, includi	ing this cover sheet.		
3. This	report is also accor	npanied by AN	NNEXES, comprising	:			
a.	(sent to the d	applicant and	to the International B	urean) a total of 5	sheets, as follows:		
	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).						
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. 1 and the Supplemental							
Box. b (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))							
containing a sequence listing and or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).							
4. This	report contains indi	ications relatin	g to the following ite	ns:			
$\boxtimes$	Box No. I	Basis of the r	report				
	Box No. II	Priority					
	Box No. III	Non-establisl	hment of opinion with	regard to novelty, inver	ntive step and industrial applicability		
	Box No. IV		of invention				
$\boxtimes$	Box No. V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
	Box No. VI	Certain docu	ments cited				
	Box No. VII Certain defects in the international application						
	Box No. VIII Certain observations on the international application						
		Date of completion of this report					
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Name and mail	ling address of the 1	PEATEP	-	Authorized officer			
Facsimile No.				Telephone No.			

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/002897

Bo	x No. I		Basis of the report		•
1.	Witl indi	n regard t cated und	to the language, this report is based on the international apposer this item.	dication in the language in	which it was filed, unless otherwise
		This rep	eport is based on translations from the original language into is the language of a translation furnished for the purposes of	the following language	<u> </u>
ł		ir	international search (Rule 12.3 and 23.1(b))		
		p	publication of the international application (Rule 12.4)		
			international preliminary examination (Rule 55.2 and/or 55.3		
2.	recei	i regard t iving Offi report):	to the <b>elements</b> of the international application, this report if ice in response to an invitation under Article 14 are referr	s based on <i>(replacement .</i> red to in this report as "o	sheets which have been furnished to the priginally filed" and are not annexed to
		the inter	ernational application as originally filed/furnished		
	$\boxtimes$	the desc	scription:		
		pages	1-10		as originally filed/furnished
		pages*	receiv	ed by this Authority on	
		pages*	receiv	red by this Authority on	
:	$\boxtimes$	the clair	ms:		
		nos.	•		as originally filed furnished
		nos.*		as amended (togethe	r with any statement) under Article 19
		nos.*		ed by this Authority on	19.01.2005 with letter
		nos.*	receiv		
	$\boxtimes$	the draw		•	
		sheets	1/6-6/6		an originally 471 at/Gamainly at
		sheets*	•	ad by this Authority on	as originally filed/furnished
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				ed by this Authority on	
			nce listing and/or any related table(s) - see Supplemental Bo	x Relating to Sequence Li	isting.
3.		The ame	endments have resulted in the cancellation of:		
	l r	the	ne description, pages		
	į	the	ne claims, nos.		
	Ĺ	the	e drawings, sheets figs	<del></del>	
		the	e sequence listing (specify):		
	Ł		ny table(s) related to sequence listing (specify):		
4.		This repo they have	port has been established as if (some of) the amendments are verbeen considered to go beyond the disclosure as filed, as in	mexed to this report and dicated in the Supplement	listed below had not been made, since tal Box (Rule 70.2(c)).
		the	e description, pages		
	اِ		e claims, nos.		
		the	e drawings, sheets/figs		
			e sequence listing (specify):		
		•	y table(s) related to sequence listing (specify):		
*	If item		es, some or all of those sheets may be marked "superseded."		

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/002897

Box	x No. V Reasoned statement citations and expla	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
i.	Statement			
	Novelty (N)	Claims	1-16	YES
		Claims	17-21	NO
	Inventive step (IS)	Claims	1-16	YES
		Claims	17-21	NO
	Industrial applicability (IA)	Claims	1-21	YES
		Claims	•	NO

- 2. Citations and explanations (Rule 70.7)
  - 1. Reference is made to the following documents:

D1: US-A-3 643 549 (NAGATOMO KUNIYASU)

22 February 1972 (1972-02-22)

D2: DE 42 01 393 (MANFRED BAUR)

3 June 1993 (1993-06-03)

D3: US-A-5 722 298 (SCHWARZBICH JÖRG)

3 March 1998 (1998-03-03).

2. Document D1 is considered to the prior art closest to the subject matter of claim 1. Said document discloses an axial piston engine with a rotatably mounted cylinder drum that comprises a central recess and multiple cylinder bores running approximately parallel to the central recess, pistons being movably guided therein, said pistons being supported on a swashplate by means of sliding shoes which are guided in recesses of a recoil plate, a recoil member being guided in the centrally disposed inner bore of said recoil plate and having an outer surface that corresponds to the inner bore of the recoil plate, said recoil member being preloaded in an axial direction by

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International application No. PCT/EP2004/002897

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

means of a tension spring via at least one pressure pin and each pressure pin comprising an enlarged planar surface area on its lower end facing the recoil member, said area being radial relative to the longitudinal axis of the pressure pins.

- 2.1 Thus, the subject matter of claim 1 differs from the known axial piston engine in that the surface enlargement is planar.
- The subject matter of claim 1 is therefore novel (PCT Article 33(2)).
- 2.3 The problem addressed by the present invention can consequently be regarded as that of reducing the contact pressures in the contact region between the pressure pin and the recoil member.
- The solution to the above problem, as proposed in claim 1 of the present application, involves an inventive step (PCT Article 33(3)). The reasons are as follows.
- 2.5 The solution in question has no precedent in the searched prior art and, to a person skilled in the art, is non-obvious therefrom since, in D1, contact pressures in the contact region between the pressure pin and recoil member were reduced by plastic deformation.

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/EP2004/002897

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 3. Claims 2-16 are dependent on claim 1 and, in consequence, likewise satisfy the requirements of the PCT in respect of novelty and inventive step.
- 4. The present application fails to satisfy the requirements of PCT Article 33(1) because the subject matter of claim 17 lacks novelty (PCT Article 33(2)).
- 4.1 Document D2 discloses (see figure 2; claim 4; column 3, lines 49-56) a pressure pin (10) with a planar enlargement of the surface area (10.4) of the head of the pressure pin, a planar enlargement of the surface (10.1) also being provided on the opposing, bottom end of the pressure pin.
- Document D3, likewise, discloses all the features of claim 17.
- Dependent claims 18-21 contain no features which, combined with the features of any claim to which they refer, meet the PCT requirements for novelty and/or inventive step.